

New York State Department of Transportation

Yellow Flag NB22CTW005

By: Rehan Afridi

Flag Date: March 18, 2022

Superseding Information:

This flag supersedes: YF NB2158W013

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: March 18, 2022 10:00:00 AM

Of: NYSDOT Region 11

Signature Information

Signature: Rehan Afridi, P.E. 075185

Date: April 04, 2022

Reviewed By: Robert Kemp

Date: April 04, 2022

Attachments: 5

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 129			
	107 - Steel Open Girder/Beam	781	ft
	PR831 - Steel Beam End	34	each

Flagged Condition Description

This Yellow Flag NB22CTW005 supersedes previously issued Yellow Flag No. NB2158W013.

Location: Span 129 Girder G5 at Pier 128

Description: The end of Girder G5 in Span 129 at Pier 128 exhibits severe corrosion resulting in an overall web bearing area section loss of approximately 40% (previously 41%) and an overall shear web area section loss of approximately 21% (no change) with an average overall localized section loss of approximately 53% (no change) for 6"L x 5"H area directly above the bearing below the guide angle (Photos 2 and 3). Also, the lower web of the girder adjacent to the web bearing area exhibits an average of 20% section loss for 2'L x 3"H above the bottom flange. In addition, both edges of the bottom flange exhibit 30% section loss for 2'L x 3"W above the bearing area. There is no significant change in the condition since the last inspection. (Refer to sketch for more details)

Notes:

- 1.The adjacent Girder G4 exhibits up to 35% section loss at the lower web above the bottom flange and for the full web height adjacent to the guide angles. The condition is the same as reported in the last inspection.
- 2.The adjacent Girder G6 exhibits up to 30% section loss at the lower web above the bottom flange and 20% section loss for the full web height adjacent to the guide angles. The condition is the same as reported in the last inspection.
- 3.The flagged condition was accessed using a 30ft bucket truck with westbound left lane closure.

Flag Photographs

Photo Number: 1

Photo Filename: Photo 1-RA_603-0173 edited.jpg



Attachment Description: General view of the flagged condition at Girder G5 in Span 129 at Pier 128. Looking Begin.

Photo Number: 2

Photo Filename: Photo 2-RA_603-0174.JPG



Attachment Description: The left face of Girder G5 in Span 129 at Pier 128. The end of the girder exhibits severe section loss in the lower web above the bottom flange at the bearing as well as the web height adjacent to the guide angle. Looking Begin and Right.

Photo Number: 3

Photo Filename: Photo 3-RA_603-0182.JPG



Attachment Description: The right face of Girder G5 in Span 129 at Pier 128. The end of the girder exhibits severe section loss in the lower web above the bottom flange at the bearing as well as the web height adjacent to the guide angle with edge section loss at the bottom flange. Looking Left.

Photo Number: 4

Photo Filename: 22YF_Span 129_G5 Sketch.jpg

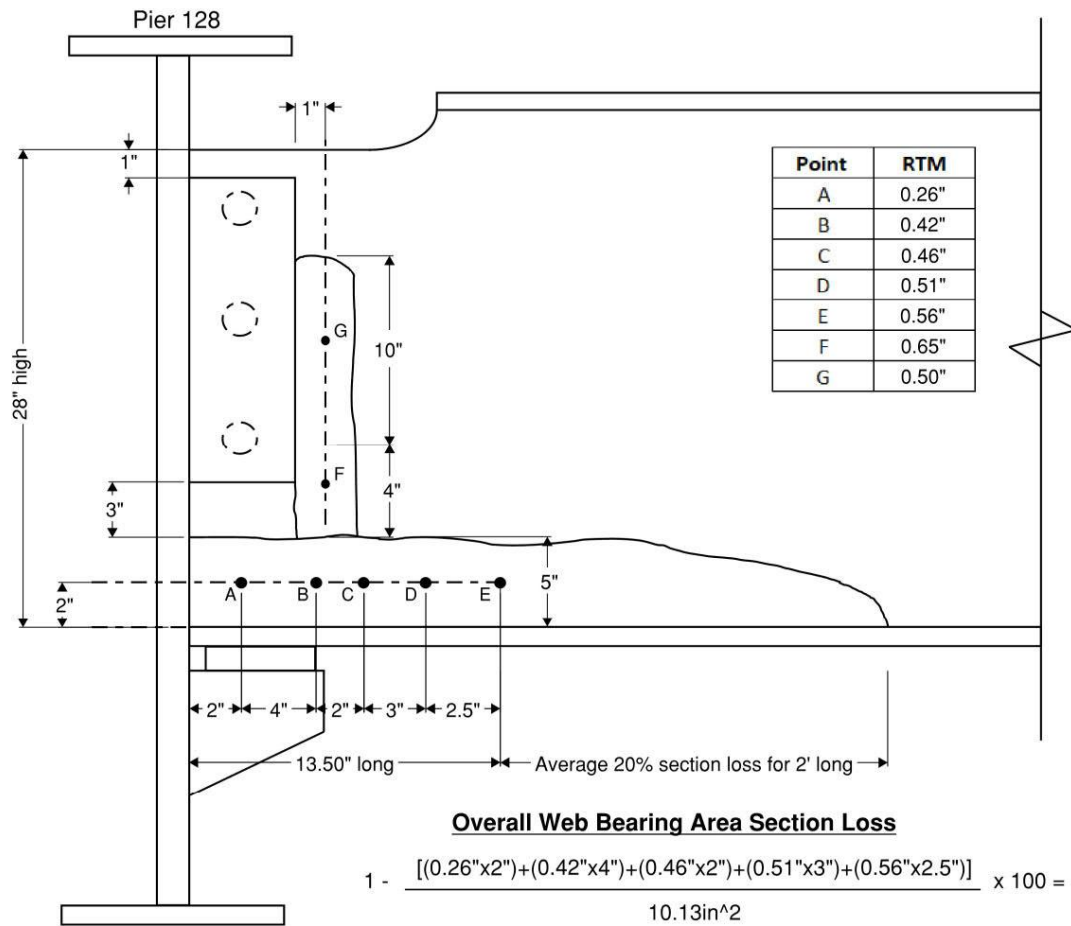
Right Face of Girder G5 Sketch in Span 129 at Pier 128

N.T.S.

DATE 03/18/2022

TEAM LEADER Rehan Afridi, P.E.

ASSISTANT TEAM LEADER Marcos Perez

**Overall Shear Web Area Section Loss**

$$1 - \frac{[(0.42" \times 5") + (0.65" \times 4") + (0.50" \times 10") + (0.75" \times 9")]}{21 \text{ in}^2} \times 100 = 21\%$$

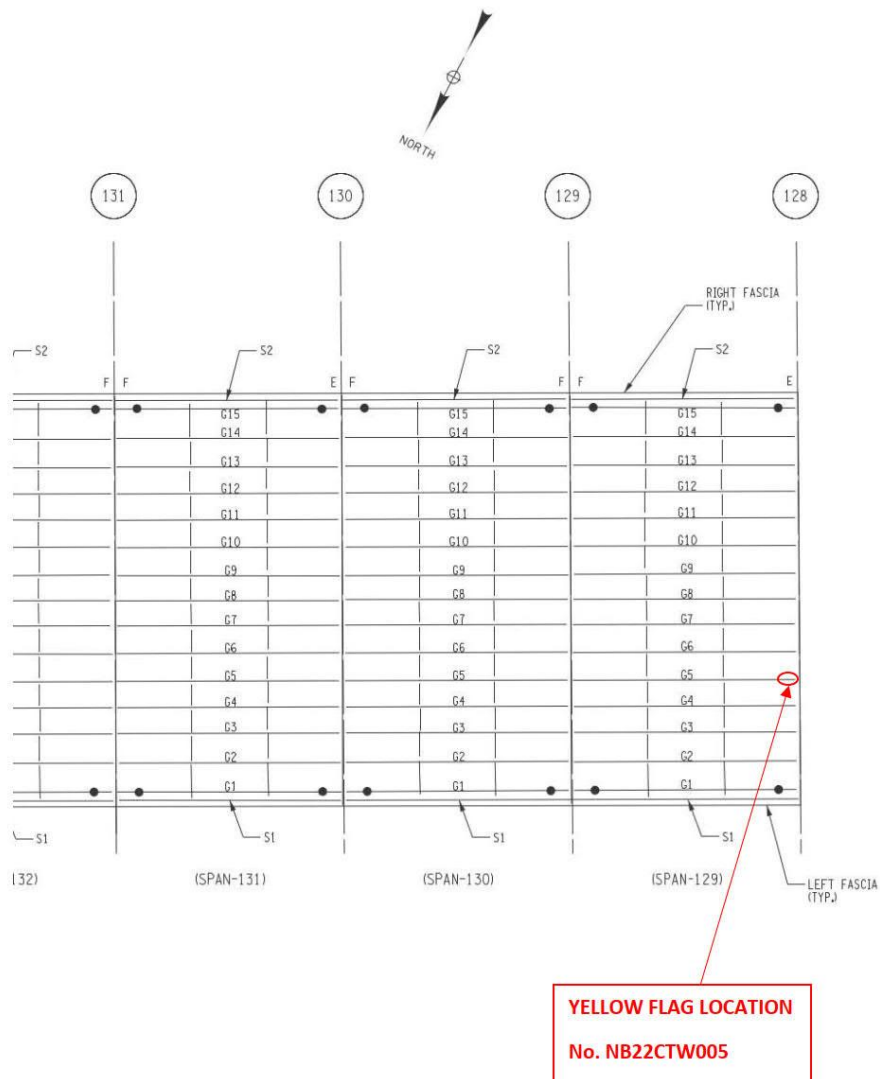
Notes:

- As-built web thickness = 0.75"
- Length of bearing area = 18 x web thickness = 18 x 0.75" = 13.50"
- Overall bearing area = 13.50" x 0.75" = 10.13 in²
- As-built shearing web area = 28" x 0.75" = 21 in²
- Adjacent Girder G4 exhibits up to 35% section loss at the lower web above the bottom flange and for the full web height adjacent to the guide angles
- Adjacent Girder G6 exhibits up to 30% section loss at the lower web above the bottom flange and 20% section loss for the full web height adjacent to the guide angles
- Both edges of the bottom flange exhibit 30% section loss for 2'L x 3"W in front of the bearing area

Attachment Description: Span 129 G5 at Pier 128 Sketch

Photo Number: 5

Photo Filename: YF NB22CTW005 Framing Plan --.jpg



Attachment Description: Span 129 G5 at Pier 128 Framing Plan